DX Club

North Alabama

# The LongPath

A North Alabama DX Club Publication

### Special points of interest:

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- February Minutes
- DX Contests
- Treasurer's Report
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- Barefoot Chronicles
- 2018 Budget Proposal

### From the President

I was very sad to hear that Tom Russell N4KG became a silent key on March 8th. I have visited Tom in the hospital several times over the last two months. Last Saturday Bob K8KI, Tom KG4CUY, and I went to visit Tom and we also met his sister Ruth. The discussion ended up on remote operating. That will become an interesting alternative for many of us when we can no longer maintain a station, or it is unreachable on the second floor. It was interesting to watch Tom's eyes light up when I told him he could operate a station remotely that had a 4 square on 160m.



Tom and Evelyn at the 2005 NADXC Christmas Party

I will miss Tom in many ways. I could always count on him being on the radio and ready with the up to date status of what DX was available. He spent a lot of time in the chair and his DXCC Challenge count of 2986 showed it. He also has one of the highest DXCC counts on 80 Meters with 349. Those are a few of Tom's amazing lifetime accomplishments.

Tom has written several good articles on antennas. His focus on antennas was also one of the reasons why he did well with DXing. He never had the best rig, amplifier or computer. He would even go so far to reconfigure his antennas for a particular DXpedition. Tom has been a great mentor for me on how to work the really rare weak DX stations. He had a great understanding of all the really odd things that can happen with propagation. He had that knowledge from experience. His goal in the last 10 years or so was to work every DX station on every band. It is incredible how many stations he achieved that with. I was pleased when he finally got interested in RTTY. He had

Cont'd on p. 6

### Ham Radio at the Bottom of the World March Program by James Casey, AI4LX

\* Come to a club meeting;

How to Join

\* or send in an application by mail (form on www.NADXC.org)

\* or call Tom Duncan at (256)705-2147 We may have missed the big Bouvet DXpedition, but the far, far south is still represented by scientists, some of whom are hams. Our presenter writes:

"In this talk I will give an overview of living and working at one of the most isolated scientific research stations in the world. In particular, I will spend time focusing on the operations of the South Pole ham radio station KC4AAA, and I will detail my personal experiences and the challenges I faced operating in such a unique and highly sought-after DX location. "

Get to the Golden Corral around 6:00 for dinner, 7:00 for the business meeting, and 7:30 for the program. An don't forget to set your clocks forward Saturday night, or you'll never make it!



### Meeting Minutes for February 13, 2018

Kelley Vann-Johns, W4VPZ, NADXC Secretary/Treasurer

#### **Attendance**

Members <u>21</u> & guests <u>2</u> (one was voted into membership)

### Review of Sign-in Sheet & DX worked

Steve AG4W Z60A

Rob KB5EZ busy being NN4SA for

NASA on the air event

Mark N4BCD Z60A 20m

Bob KC4TNC MW3FT, 404A, 9G1SD,

5T2AT

Chuck N4NM Z60A

AI W4ABW Z60A

John N5DF Z60A, 3G9A/MM

Stephen KK4TJP 3B9, EA6,

ZB2 all on 17m FT8

#### **Announcements**

Z60 Kosovo, a new DX entity, has been active. Several members have made the contact.

Unfortunately, we will not see the NADXC banner up in Bouvet. The DXpedition was aborted for safety concerns related to the ship's engine. They are headed home via South Africa.

The first ever Polish DXpedition to Bouvet Island is possibly going in the December 2018 timeframe. They will operate as 3YOI. Members of the DXpedition are 3Z9DX, SQ8X, SP3DOI, YK4DX, AND J69DS. This group plans to travel by power seagoing yacht with sails and 2 engines. The trip is financed from the private resources of the participants and will sail from South Africa.

Tom Russell N4KG has been in the hospital, but was moved to rehab today.

#### Treasurer's Report for December

Beginning Balance \$ 3,824.63

**Debits** 

PayPal Deposit

Repeater Power (2017) -\$ 80.00

Credits (all were dues payments)

PayPal Deposit \$ 301.35

Deposit \$65.80

Deposit \$ 100.80

\$ 160.30

PayPal Deposit \$ 95.19

Deposit \$15.00

Ending Balance \$ 4,483.07

The treasurer's report was approved of by the membership.

A Club proposed budget for 2018 that was published in the last Longpath newsletter was updated, and the amended 2018 budget was approved by the membership (see attached).

We hope to grow the club membership by getting out the word on the meeting programs and to attract all levels of DXers.

#### **Membership Applications**

Mike W4MRP was unanimously voted in to membership. Welcome, Mike!

#### **Old Business**

Chuck N4NM is working on updating the DX Club's Honor Roll plaques.

Stephen KK4TJP is sorting and mailing outgoing QSL cards for DX Club members who are also members of the ARRL.

### **New Business**

The Springhill Suites behind the VBC has been contracted to hold our DX Club Banquet for the Huntsville Hamfest weekend this year. The amenities, services, and costs are nearly identical to our previous venue. The advantage of

### The LongPath Staff

### Publisher/Editor:

Tom Duncan, KG4CUY

### **Departments:**

Chuck Lewis, N4NM, DX Contests

Kelley Vann-Johns, W4VPZ, Minutes

Steve Werner, AG4W, From the President

Craig Behrens, NM4T, Barefoot Chronicles

the Springhill is that the capacity is not limited to 100, which was cramped at the Best Western. We will offer 120 tickets for sale this year.

Dave Thompson K4JRB recently resigned as the SE Division DX Advisory Committee member. Greg Sarratt asks for the North Alabama DX Club to give him a recommendation for consideration for the new SE Division DX Advisory Committee member. He is asking also the SEDXC, FCG, and ACG for recommendations. The NADXC asked our President Steve AC4G to be our recommendation for the position, and Steve agreed.

Birgit Stensby has suggested that the members of the NADXC pool resources to offer a ham radio class at the UAH Osher Lifelong Learning Institute (OLLI) for the fall term. The OLLI office will need information no later than May 1: moderator, presenters, syllabus of material, etc. The classes are once a week during the work day, and can be from 4 to 8 weeks in duration. No one volunteered to act as a moderator for such classes (yet), but the membership seemed to agree that it could be a good project to pursue.

The meeting adjourned and was followed by a program on FT8 given by Stephen KK4TJP.

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### DX Contests for March

By Chuck Lewis 1 N4NM

## RSGB Commonwealth Contest (BERU), (CW), 80 – 10 meters

Mar. 10, 1000Z to Mar. 11, 1000Z Exchange: RST plus S.N.

See page 85, Mar. QST or www.rsgbcc.org/hf

## South America 10 Meter Contest (PH/CW), 10 Meters

Mar. 10, 1200Z to Mar. 11, 1200Z Exchange: RS(T) plus CQ zone See page 85, Mar. QST or www.sa10m.com.ar

### Stew Perry Topband Challenge, (CW), 160 Meters

Mar. 10, 1500Z to Mar. 11, 1500Z Exchange: 4-Character grid square See page 85, Mar. QST or <a href="http://www.kkn.net/stew/">http://www.kkn.net/stew/</a>

### Russian DX Contest (PH/CW), 160 - 10 Meters

Mar 17, 1200Z to Mar 18, 1200Z Exchange: RS(T) plus serial #; or RS (T) plus Oblast #

See page 85, Mar. QST or www.rdxc.org

# Treasurer's Report for February 2018

Beginning Balance \$ 4,483.07

Debits

Website Hosting -\$ 13.32

Credits (dues payments)

PayPal Deposit \$50.07

Deposit \$56.00

Ending Balance \$4,575.82

### BARTG HF RTTYContest, (DIG), 80 - 10 Meters

Mar 17, 0200Z to Mar 19, 0200Z

Exchange: RST plus 3-digit S.N. plus 4-digit UTC time.

See page 85, Mar. QST or www.bartg.org.uk

# UBA Spring Contest, SSB (SSB), 80 Meters. 5 watts max.

Mar, 18, 0700Z to Mar 18, 1100Z Exchange: RS, Serial, UBA section (if any)

See page 85, Mar. QST or www.uba.be/hf/contest-rules

### CQWW WPX Contest (PH), 160 - 10 meters

Mar 24, 0000Z to Mar 25, 2359Z Exchange: RS plus Serial #. See page 85, Mar. QST or www.cgwpx.com

### UK/EI DX Contest, CW (CW), 80 - 10 meters

Mar 31, 1200Z to April 1, 1200Z Exchange: RSTplus Serial #, UK/EI district code

See page 85, Mar. QST or www.ukeicc.com



**OTHER** 

#### Tesla Memorial Contest.

1800Z Mar. 10 to 0559Z Mar.11

SP DX Contest 1500Z,

April 7 to 1500Z April 8

JIDX CW Contest,

0700Z, April 14 to 1300Z April 15

OK/OM DX Contest,

1200Z April 14 to 1200Z, April 15

Dates & times often change or are misprinted in the journals; beware.

Chuck, N4NM

# NADXC Outgoing QSL Card Bundling By Stephen Smith, KK4TJP

Are you bummed out by the new higher prices charged by the ARRL for outgoing QSL service? Loosing sleep over those return QSLs for ON4UN? We have just the cure for QSO-induced depression and insomnia—read on.

We are now providing ARRL Outgoing QSL card bundling for our members who are also ARRL members! Bring your QSL cards to any meeting. The fee for adding to the Club's outgoing bundle is \$3 for the 1st ounce (about 8 cards), and \$2 for each additional

ounce. You must also provide proof of your current ARRL membership to submit with the cards. Please alphabetize your cards and find Stephen KK4TJP to submit the cards and payment.

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### The Barefoot Chronicles

By Craig Behrens, NM4T

### Follow-up from February's Column:

Thanks for the positive feedback. No follow-up required.

#### This month:

Since my last column discussed chasing DX and DXpeditions, let's initiate a new conversation about being DX and examine some of the "tricks of the trade" that create maximum fun while conducting a successful operation.

(<u>NOTE</u>: If you ask around, you would be amazed where some of our NADXC members have operated from.)

We will also take a quick look at Quick-Up/Quick-Down portable station configurations featuring Elecraft's new KX2 transceiver that are air travel and survivalist Go-Bag compatible.

(Much of this information should be especially useful for those who have tough homeowner association restrictions.)

I'll start our conversation by sharing a few thoughts and techniques I acquired from operating in QRP/lowpower Caribbean DXpeditions.

# My Two Core Requirements for Selecting DXpedition Team Members:

I quickly realized in my first DXpedition that there are only two core requirements for selecting team members: They must be people that you can entrust your life to; and, each person must bring something special to the party.

I suppose that most people don't think about this much on small and/or simple trips, but there is always a risk that things can go wrong, maybe terribly wrong when you are far from home.

Since most DXpeditions are conducted by a small number of participants, it is also wise to leverage diversity, not just for who does CW, SSB or other modes of operation, but for as many of the other skills that are needed (financial, organizational, medical, etc.).

### **Getting There and Back:**

I fondly remember the days when traveling by air was reasonable. The airplanes were seldom packed full and you could check two bags as well have two smaller carry on bags. Further, they were not sticklers about weight.

For example, getting through security for the 2013 Buddies in the Caribbean (BIC) trip was no big deal. However, this has become much more complicated and cumbersome since then. These days, baggage restrictions are more severe and getting to the gate inspections are much more involved.

I was not surprised when I had to unpack the carry on bag had my KX3 transceiver and key station components. I was prepared for it, ready.

However, I was surprised about what items set-off warnings for the security team members. The x-ray showed a bunch of ferrite toroid's in my external antenna tuner and that my Morse code key was a big block of metal that they couldn't figure out.

Could that be control circuits and explosive materials, they wondered?

Fortunately, the inspection teams (coming and going) were good about the whole deal. Now, things are much more tenuous.

For those wondering about cruise ships – it can be done, but your antenna options are so limited that I don't think it's worth the effort. If you read the cruise terms and conditions document, you will find that you're not allowed to bring transmitters onboard without special permission.

In addition, Operating on several



Caribbean islands requires special licensing since there are so many different counties involved. Getting such licenses can be involved and time consuming. It's best to have native Ham friends willing to facilitate the process for you.

# Operational Lessons Learned Regarding Transmitter Power:

When you are transmitting from a mountaintop or at a location where your antennas are near saltwater (<1/4 wavelength), life is good and you can (usually) make a lot of contacts with QRP (5-watts or less) power output levels.

This becomes an unachievable challenge if/when you are operating from a sought after location and/or participating in one of the major worldwide contests that provide massive pileup opportunities.

Here, I have found that you can work all the DX you want with 5 watts, but you won't be able to manage the large pileups, even by operating split. Often, you can hear well at your end, but the chasing stations can't. And, it only takes a small number of stations to destroy your ability to systematically work the pileups down.

Further, if/when you lose this level of control, the pileups can quickly become disgruntled and outright ugly.

(NADXC'ers see this too often with rare

(NADXC'ers see this too often with rare country pileups.)

But, running 100 watts can make an enabling difference – be good enough.

A somewhat counterintuitive technique worth consideration for those operating "Beach" portable with only battery power is to transmit with 20 watts vs. 5 watts since you won't be there for very long.

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### Barefoot Chronicles

(cont<sup>1</sup>d from p. 4)

The receivers in modern rigs are (usually) very good and getting that 6db power output boost can make a dramatic difference for the chasers.

Of course, you have to make sure that the battery pack can handle this load and you must monitor its charge level so you can reduce power consumption if/when you want to stretch the remaining Amp Hours

### Successfully Managing Pileups as DX:

I have found that most successful DX operators are able to maintain some semblance of respect from the chasers that makes them willing to be orderly and helpful. You must establish that you are fair and orderly. This is done by always setting their expectations for on and off times, operator changes. Etc. In other words – you must provide instructions for how and when they can successfully work you.

An example from **St. Lucia**: One early evening I was running hundreds of Japanese and Asian stations on 17 meters. Propagation was around the clock and it was so good that it seemed as if I could work that part of the world all night. But, after a couple hours, I asked them to standby and allow me to see if I had any North American stations trying to get through.

Sure enough, there were hordes of American stations trying to get through that were covered up since Asia had better propagation. I could sense many were frustrated. So, I gave them a turn and then went to alternating turns between the two areas every 30 minutes.

Looking back – the thing I remember most about this tactic was how thankful and respectful the chasers were from both pileup groups. Yes, most Americans can behave! (Well, at least for short periods of time.)

Concerning high-power amplifiers,

one of our team members brought an Alpha Amplifier for the CQWW contest we would compete in at **St. Kitts**. To our chagrin, it turned out that we could not use it.

We carefully reinstalled the transmitting tubes. Then, we set the station up, paying close attention to make sure that we got everything just right. However, when we tried to power it up, it immediately went back into its protection mode again.

We were getting close to the beginning time for the contest and we had to wait 5 to 10 minutes for the amplifier to recover before we could be turn it to the "operate" again.

We reduced power to below 400 watts and it still did this. We couldn't figure out what was wrong.

Finally, as it became dark outside, I happened to notice that when they tried to key the amplifier – the street-light near the house dimmed. The amplifier was going into protection due to voltage dropouts.

The (hard) lesson learned - don't assume that you will have all the A/C power you need in the Caribbean (or other sites).

# Another Surprise Example for Inexperienced Multi-Op DXpeditions:

Participating in the 2013 Buddies in the Caribbean (BIC) suitcase DXpedition was having more fun that a barrel of monkeys. (I highly recommend it should you be able to get onto their short list.)

We operated from the Chateau Devaux at the northeast edge of St. Lucia with BuddiPole antennas hanging over an almost 800 foot cliff. We had nothing but saltwater between us, Asia, Europe and the U.S.A.

You can check this out at: https://



### www.booking.com/hotel/lc/chateaudevaux-cap-estate.html

We constantly were setting-up and fooling around/experimenting with different antenna configurations the nine days we were there.

Everything started out as would be expected . . . However, we soon discovered that the SWR meters that most of the team members brought did not work well in this multi-op environment. The iP30z and iP60z that BuddiPole sells and MFJ meters would not function properly while several operators were transmitting. You couldn't shut down run stations every time you needed to tune other antennas.

Fortunately, I brought a new RigExpert AA-170 meter that operated just fine. You could see that people were on the air, but that did not prevent my meter from functioning correctly.

Many BIC DXpeditions had been executed before, but this was the first time they had this kind of problem with tuning additional antennas with the antenna analyzers they had used before.

Four Minimalist Portable Radio Stations Go-Bag Approaches: Let's shift gears now and take a quick look at four simple portable radio station configurations featuring Elecraft's new 80 thru 10 meters KX2 SSB/CW/Data "Grab & Go" SDR transceiver.

(**NOTE:** It does not include 60 meters. But, it is fully compatible with Elecraft's 100-watt amplifier option.)

Link to Elecraft KX2 Data Sheet:

# http://www.elecraft.com/manual/kx2\_datasheet\_web.pdf

Hopefully, the following examples will fire-up your imagination and you will create your own "just for fun" radio adventures.

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### **Barefoot Chronicles**

(cont<sup>1</sup>d from p. 5)

OK, I'm not suggesting that these "minimalist" portable station approaches will emulate powerful DX stations. They won't be nearly as effective as your home stations for chasing DX, being DX or in serious contesting operations. But their performance will often surprise you if/when they are effectively applied. Further, they can address core survivalist Go-Bag communication needs for when "the Grid" is down.

My first example takes advantage of the KX2's built-in MIC along with the Antenna Tuner (ATU) and the KXBT2 11 volt 2.6 Ah battery options.

Wayne—N6KR's shows how easy it is to go HF Pedestrian Mobile when using Elecraft's new (pocket) Transceiver in the KX2 Transceiver User's Manual (page-10).

This can be viewed or downloaded from: <a href="http://www.elecraft.com/">http://www.elecraft.com/</a> <a href="manual/E740282%20KX2%20owner%">manual/E740282%20KX2%20owner%</a> <a href="mailto:275%20man.pdf">275%20man.pdf</a>

Attach an MFJ or BuddiPole telescoping antenna to the KX2's BNC jack and connect an insulated **12-foot** trailing wire that drags behind you when you walk. It can be attached via a tiny banana jack to a dedicated antenna ground input on the KX2. This allows the wire to be accidentally jerked off without any damage occurring.

This antenna set-up is electrically short, but it will work well with 10 watts and less on 10 through 20 meters.

My **second example** has been around for quite a while and is often used by serious Pedestrian Mobile operators, who like to leverage the benefits of transmitting near saltwater?

However, in this case, you're actually wading around, ankle to knee deep, in the saltwater.

Peter - VK3YE's Wade Antenna for

HF Pedestrian Mobile design includes a quarter wavelength long vertical element cut for 20-meters. He supports this with an extendable telescopic pole.

The novel groundside of his antenna design employs a wire that terminates with a copper ring that attaches to your ankle. He uses an L-match antenna coupler allows this set-up to be used for 10 to 50 Mhz. (He also provides an option for transmitting on 40-meters.)

(NOTE: Peter makes it clear (for reasons that should be obvious) that you should **only** operate with 5 watts or less with this kind of approach.)

Information and build instructions for Peter — VK3YE's Wade Antenna for HF Pedestrian Mobile Antenna can be accessed via:

#### http://www.eham.net/articles/33186

My **third example** includes a small Go-Bag, an AlexLoop antenna with a small, modified Coleman lantern stand folding-tripod.

Besides being compact, lightweight and easy to set-up – two additional features that make this 10 through 40-meter approach great are that you do **not** need an antenna tuner and that the AlexLoop includes a short length of coax.

I've used this quick and easy set-up at many fun locations for short "get-in/get-out" Op's.

My fourth (and last) example gets back to simple and classic QRP/low-power operations with just a KX2(with ATU) and a couple pieces of non-resonate wires to operate on the 10 to 40-meter radio bands

The two insulated **25-foot** wires are attached to the KX2's BNC connector via banana-jack or wire lugs to the two posts of a BNC-to-binding post adaptor. (See the illustration at the Elecraft link



referenced above.)

The end of the "hot" side of this wire antenna is typically sloped to a tree and the groundside is simply stretched out across the ground.

Needless to say, there is an infinite number of ways to get into amateur radio mischief. The main idea I'm presenting here, though, it to get you and your friends out to engage in such adventures!

As a final comment for these radio applications, having your cellphone and/or a hand-talkie (HT) with you will multiply the number of ways that you can promote and capture your activities to the radio community's benefit.

So, what kind of DX could you work when propagation is good? Here's an example of when "DX magic" occurred while some of my friends and I were at a Monte Sano State Park rustic cabin:

After about 10 minutes of tuning the bands, I hear this "3B9FR de N4EO N4EO 559/559 K" coming out of the QRP transceiver's speaker! Jerry—N4EO had just worked his best ever QRP distance from the cabins with this contact with a guy at Rodrigues Island in the Indian Ocean. This QSO was some 10,330 miles away, which translates to approximately 1,476-miles-per watt. This doesn't happen every day... But, it happens more often than you think when you are Radio Active.

That's it for now. Hopefully, I've provided some ideas that will be of value.

#### **Next month:**

I plan to take a look at **Small porta**ble & home station antenna system trade-offs.

See you on the radio.

72/73 & DX,

Craig-NM4T

(cont<sup>1</sup>d from p. 1)

a new DXCC count he could to drive up and he did it in short order.

Tom also enjoyed contesting. In recent years he focused on working the most multipliers he could on each band. I ran into him many times during the pileups and always enjoyed swapping how we were doing on the repeater. During the last month we had the ARRL DX contests. I really missed not hearing him in those contests. I thought the propagation was better during the CW contest. I operated single band high power on 40 meters for both contests. I was able to run some in the CW contest and had almost no luck doing it in the phone contest, so I made twice as many contacts in the CW contest. Tom gave us great contest result summaries of his observations in his 3830 results. I encourage you to go back and read some of them. His last contest entry was the ARRL 160 Meter contest in December. I am glad he could enjoy his passion right up until he went in the hospital.

On a much brighter note I am looking forward to hearing this month's guest speaker James Casey talk about his operation in the Antarctic. I'm interested to hear about what he had for equip-

Anatoly Tapkin

Anatoly

Ana

ment and the propagation down there. I have operated in several countries outside the US vacation style and had a great time. One of the reasons that I have spent some time at a multi-op station during contests is that some day I would like to take part in a major DXpedition. Most of them like to see you have worked well with a team of operators. They also like to see you have skills in all the modes. The commitment of time prohibits doing that until I retire. Many of the large DXpeditions require a commitment of 6 weeks. I will be interested to hear how James got the opportunity to work there and what other countries he got to operate in.

I also got my EME station working better than it has before and worked 5 stations over 3 evenings this month. The EME challenge of 251dB path loss, faraday rotation, spatial polarity, libration fading, sky noise and doppler made the 5 EME 2 Meter contacts I made this week just as exciting as the initial 14. A better antenna with 4 more elements is always more important than a better radio. I also received two EME QSLs this week. They are special because the contacts were special and most show their antennas.



I sure hope we get a few sunspots back. As I write this there have been none in the last 5 days. That is why I'm looking forward to my next EME propagation window which begins on March 17th. I'm also looking forward to the CQ WPX phone contest later this month. I will never forget the year we won Mult-Multi at NQ4I and broke the USA record. I have never had more fun running stations than in that contest.

73 Steve AG4W

### **NADXC Officers and Directors**

President Steve Werner, AG4W

Vice President Rob Suggs, KB5EZ

Secretary/ Kelley Vann-Johns, W4VPZ

Treasurer

At-large Kevin Hibbs, KG4TEI

### N4KG Tom Duncan, KG4CUY

Thank you, Tom Russell, for innumerable antenna tips and suggestions, some none too subtle. Thanks for introducing me to the marvels of skywave propagation. Thanks for opportunities to fix all sorts of broken or barely -working equipment, none of it mine. Thanks for clues, like "If you want to work JAs, get on 40m at sunrise" and "If you can't work PYs and LUs on 10m, its because the band is broken" and "work 'em first, worry later." Thanks for great sling-shot work getting wire antennas up into trees. Thanks for beating into my head the notion that antennas don't have to be resonant to work.

Thanks for being a friend.

### Amended Proposed 2018 Budget

By Kelley Vann-Johns, W4VPZ, NADXC Secretary/Treasurer

Shown below is the 2018 budget proposal as amended and subsequently adopted by those in attendance at our February meeting. All members are

urged to review this.

Amended PROPOSED North Alabama DX Club						
2018 Budget						
Description	Income		Expense		Bank Balance	
Current Bank Account Balance 1/1/17				\$	3,824.63	
Dues receipts (est. 50 members @ \$15 each)	\$ 650.00			\$	4,474.63	
Repeater Power Bill (Janet Richardson)		\$	(80.00)	\$	4,394.63	
Repeater maintenance		\$	(100.00)	\$	4,294.63	
Annual Web Hosting & Domain Service		\$	(72.72)	\$	4,221.91	
DX Expedition Sponsorship		\$	(400.00)	\$	3,821.91	
Young Ham of the Year Plaque		\$	(46.86)	\$	3,775.05	
Annual DX Club Banquet Receipts (est. 110)	\$ 3,990.00			\$	7,765.05	
Annual DX Club Banquet Expenses - venue & meal (110)		\$	(3,162.25)	\$	4,602.80	
Hamfest Banquet Door Prizes		\$	(400.00)	\$	4,202.80	
DX Banquet Speaker Expenses		\$	(300.00)	\$	3,902.80	
Matching of member contributions to ARRL Spectrum Defense Fund		\$	(100.00)	\$	3,802.80	
Annual Club Picnic (picnic supplies)		\$	(25.00)	\$	3,777.80	
Plaque, Dxer of the year		\$	(46.86)	\$	3,730.94	
Speaker Fund		\$	(50.00)	\$	3,680.94	
Incorporation*		\$	-	\$	3,680.94	
Name Reservation with AL Secretary of State		\$	(28.00)	\$	3,652.94	
QSL Service		\$	(20.00)	\$	3,632.94	
DX Honor Roll Plaque Refurbishment		\$	(50.00)	\$	3,582.94	
Summary	\$ 4,640.00	\$	(4,881.69)		_	
Net Difference in Bank Balance	,- ,-	F	( , )	\$	(241.69)	
*Donation 2/9/16 of \$200 to the club earmarked for incorporation expenses						